

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1373

HARDY NUT TREES

1914



*Branch of
Persian Walnut*

J. F. JONES

THE NUT TREE SPECIALIST

LANCASTER, PA.

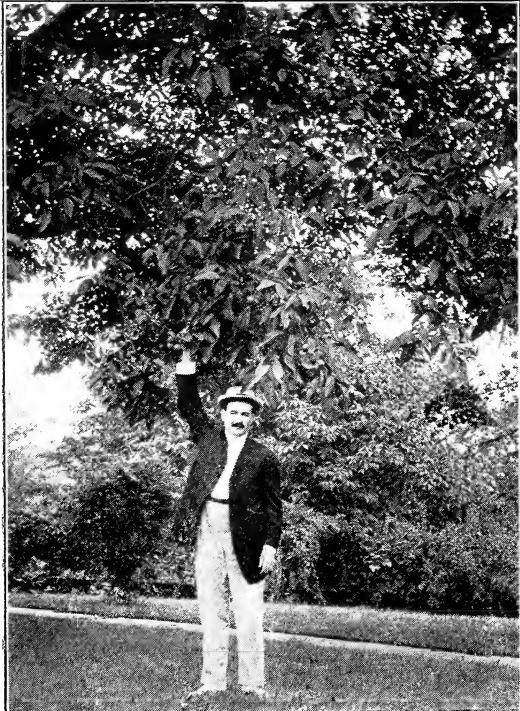
FOREWORD



THE DEMAND for information on hardy nut trees, and as to where they might be grown successfully, has become so great that I have tried to incorporate this information, in so far as I am able and as far as space will permit, in this little catalogue. It is my desire to make this information as reliable and as accurate as possible, and, to this end, I have traveled quite extensively, for several years, over portions of several states in which the Pecan and Persian Walnut are growing and fruiting successfully, and have made a special study of these trees, observing their behavior in various sections and noting especially the bearing of the trees producing the finest nuts, and which I am either propagating or "holding in the balance" until their record is shown to be satisfactory under the existing conditions.

In my study of Hardy Pecans, and the selection of varieties for propagation, I have had the co-operation and help of Hon. T. P. Littlepage, President of the Northern Nut-growers Association, Booneville, Indiana, and Washington, D. C., and Hon. Mason J. Niblack, of the Indiana State Board of Agriculture, and several others. In further study of the Persian Walnut, I have had the co-operation and help of Mr. J. G. Rush and others. Mr. Rush is the originator of the Rush Persian Walnut, and is the recognized authority on Walnut varieties and Walnut-culture in the eastern states. Mr. Rush's help has been especially valuable to me, as he has tested out a number of varieties, and, with his co-operation and assistance, I have been enabled to work out some of the problems of propagation under conditions here, while my seedling stocks were coming on and before I had disposed of my southern nursery interests, and established myself permanently here.

The propagation of nut trees—Shagbarks, Walnuts and Pecans—began as a hobby, and many obstacles and sad disappointments were met before practical results were obtained, as these trees were



Section of a large bearing Persian Walnut tree growing in the city of Washington, D. C. Mr. Littlepage in the foreground.

not to be propagated by ordinary methods, at least with my limited experience and knowledge in the matter. The culture of the trees becomes fascinating as we learn more of them and their individual characteristics; when we know that we have begun right, that we have planted the very best budded or grafted trees obtainable, and the results to be obtained are worthy of our best efforts. They are something "different"—something out of the ordinary, in fruit trees or ornamentals, and they combine, in one tree, the ornamental and useful, or profitable, to the highest degree available in our time. What is more beautiful or striking than a thrifty Persian Walnut or Pecan tree in full leafage and carrying its load of fruits? The man or woman who will pass such a tree by casually has no eye for the beautiful in nature! What other tree or trees can we plant that will give us such pleasure and satisfaction? What can we plant that is more promising of highly profitable returns than an orchard of these hardy and productive Walnuts and Pecans, when we consider their comparative freedom from diseases and insects? The best point of all is that they are something permanent and are not gone in a few years, like some of our more common orchard fruits, but live and bear for generations, and increase in producing capacity for fifty to one hundred years!

I thank my friends and patrons for past favors shown and for their kindly words of encouragement and appreciation. I solicit your favors with the assurance that it is my desire, and a part of my plan, to give the very best service possible in my line.

J. F. JONES, Lancaster, Pa.



View in nursery of grafted Persian Walnut trees. Stocks grown by Mr. Rush. Grafted by me in the spring of 1913. Mr. Rush at left

To Patrons

LOCATION. My nurseries are located near Lancaster, Pennsylvania, in a section noted for its fine farms and homes; the county of Lancaster having stood first, of any county in any state in the Union, in agricultural wealth for a good many years now. The soil and climatic conditions are peculiarly favorable for the growing of hardy nut trees, and I get here a very stocky, well-ripened growth and an especially fine root-system. They mature early and harden up their growth especially well, so that they can be safely planted anywhere that nut trees can be grown.

My transportation facilities are as good as the country affords, with quick, through service east, west, north and south. I am on the main line of the Pennsylvania, the finest railroad system in the world, and have also the Philadelphia and Reading Railway.

ALL ILLUSTRATIONS in this catalogue are from photographs made by me, and the pictures of nuts are natural size. All nursery views and trees, unless otherwise noted, are from photographs taken in my own nurseries, or on the grounds of Mr. J. G. Rush. The illustration on the front cover shows a small branch from a bearing Persian Walnut tree. It will be noticed that the husks are bursting open to release the nuts. The illustration on the back cover shows the trunk of one of the giant Pecan trees of southern Indiana. This tree is growing near Grand View, Indiana. The trunk measures nearly 18 feet in circumference, and the tree is estimated to be 190 feet high.

WHEN TO PLANT. My hardy northern-grown trees may be planted either spring or fall.

I GUARANTEE all trees sent out to be well grown, carefully packed and true to label. I am especially careful to have all my "mother blocks" and nursery trees true to name, and stand ready to replace, on proper proof, any trees that may not prove true to label, but am not liable for further damages.

I PRUNE TREES ready for planting when so instructed, and wax over the cuts with a specially prepared, tough wax, applied hot.

HOW TO ORDER. For your convenience I am inclosing an order blank. Money can be sent by bank draft, postal or express money orders, or registered letter.

A Bit of Personal History as it Relates to My Nursery Work

The propagation of nut trees was begun by me because of a natural inclination for the work, with little thought then of remuneration from the sale of trees. Had this been a business venture in the beginning, I fear that I should have given it up; but there was to me a peculiar fascination about this work, and although my first efforts in my native state, Missouri, were anything but successful, these failures only pushed me up to greater effort and more extended experimental work, with the result that I was finally able to get what, to me, were flattering results, although the average nurseryman, looking at the matter from a business standpoint, would have considered my stands of buds and grafts at that time anything but satisfactory, and my methods of doing the work too slow to be practical. With my unbounded enthusiasm, however, I could see only the bright side of the thing.

Well do I remember a call from an old, experienced nurseryman, who found me ring-budding a row of small Persian Walnut stocks. After looking at what I was doing, and after watching the slow and painstaking work of ring-budding two of these seedlings, his remarks, as I remember them now, were about as follows: "John, that is too slow for me; what are you going to do with these trees, anyway? Why, you would have to get \$5 a tree to pay you. You had better grow something that you can sell." My work appeared to worry this man particularly because, as he said, he felt that I was wasting my time "fooling" with those nut trees; and, as I had helped him in his budding, he knew that I had the ability to "go some" in budding ordinary fruit trees.

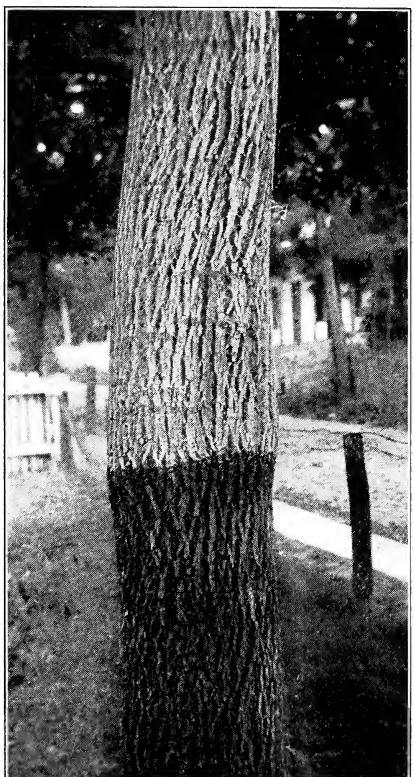
With the increasing interest in Pecan-growing in the South, and believing that this nut had a great future, I entered the southern field, and began the propagation of the Pecan on a large scale in 1901. My efforts, under the conditions in north Florida, were very successful, and I soon had the largest and finest stock of budded and grafted Pecan trees in the South.

I can point with some pride and satisfaction to bearing Pecan orchards all over the South, grown from my trees. These orchards are from a few trees up to the largest orchards of several hundred acres in extent.

I have never lost interest in the propagation of nut trees other than the Pecan, and the finest varieties obtainable of the Persian Walnut, Shagbark Hickory, Chestnut and Filbert were soon added to the list. Sales of these trees, for the most part, were made in the northern states, and I found myself at once greatly handicapped, and not able to give satisfactory service farther north. Growth started in the lower South a month or more before the trees could be shipped and safely planted out in the northern states in the spring. Grown under "hothouse" conditions, my trees did not ripen their wood up sufficiently that they could be safely planted in the northern states in the fall.

I found, to my further regret, that even when these southern-grown trees were held in cellars, and planted at the proper time in the spring, they were not satisfactory, as they could not be induced to put forth growth, as a rule, before midsummer, even when well cut back and well cared for, with the inevitable result that they were caught by freezing weather before they had properly matured and ripened their growth, and they were killed by the first hard freeze.

The selection of my present location here was made after extensive travel and investigation, and I believe that I have the best possible natural advantages for the growing and dissemination of hardy nut trees.



Persian Walnut grafted upon Black Walnut stock; close view, showing union of stock and scion. Tree 1 foot in diameter.

Nut Trees My Specialty

I grow nothing but nut trees, giving my undivided time and attention to their propagation; therefore, I can and do grow better stock and give better service than it is possible for the general nurseryman to do. The general nurseryman, growing a variety of stock, necessarily works along the lines of least resistance, and the propagation of nut trees, or other specially difficult subjects, is generally left to the few who, by patient and persistent effort, have become experts in this line of work.

THE PRICE OF NORTHERN-GROWN TREES is necessarily comparatively high, as the propagation of these trees, under northern conditions, is much more difficult than in the lower South, where the southern Pecan trees are propagated. However, as these trees are planted 40 to 60 feet apart in orchard form, the cost per acre is not very much more than for first-class trees of our more common fruits, especially when we consider the permanency of the nut trees.

THE PECAN

The Pecan is found growing naturally, as a forest tree, in the valleys or river-bottoms along the Mississippi, Missouri, Ohio, Wabash and Osage Rivers; also in Texas along the Trinity, Brazos, Colorado and Rio Grande Rivers. As the tree was found growing naturally only in the river-bottoms or valleys, it was formerly thought that it would not succeed on higher elevations or on dry soils; but occasional trees have been planted, and are growing and fruiting successfully, on a great variety of soils, from Illinois, Indiana and Ohio on the north, to the Gulf Coast and Florida on the south, and from the Atlantic to the Pacific, barring, of course, the arid plains states and the Rocky Mountains.

Enterprising Pecan-growers in the South demonstrated many years ago that the Pecan could be very successfully and profitably grown on any good land that would grow good farm crops of corn or cotton, and today some of the finest and most profitable southern orchards are in Georgia, Alabama, Mississippi and Florida, in high locations and comparatively poor soils. These orchards are far removed from the natural habitat of the tree, which, at the nearest point, is along the lower Mississippi River.

The tree, perhaps, bears earlier and more abundantly, at least while young, on the "uplands," than it does in the valleys or river-bottoms. Some of the largest and finest orchards in the above states are growing upon light, sandy "pine lands," which are decidedly lacking in natural fertility, and are, therefore, of little practical value for the growing of ordinary farm crops; but, when the trees are well fertilized and cultivated on these light lands, the growth is rapid and the trees bear early and abundantly.

The Pecan tree is the most cosmopolitan that we have as regards its adaptability to various soils and climatic conditions. It is found growing naturally as far north as Davenport, Iowa, where the tree is exposed to winter temperatures as low as 40 degrees below zero



Stuart Pecan tree, planted in the spring of 1904, growing on Mr. J. G. Rush's grounds



Major Pecan

PECANS, continued

occasionally, and from there, in practically an unbroken chain, along the Mississippi River to the Gulf Coast, where the orange, fig and other subtropical fruits thrive. The tree reaches the tropics, in its natural range, along the lower Rio Grande River.

During the past twelve years I have shipped Pecan trees of the southern varieties to all of the southern states, from Virginia south and westward and including California; also to Mexico, Cuba and the Isle of Pines. In tropical countries the tree is said to hold its leaves all winter, and will probably never bear satisfactorily; but its successful growth in humid tropical countries, and in varieties which are hardy in Illinois, Indiana, Ohio and Pennsylvania, stamps it as the most wonderful tree in the world, as regards its ability to adapt itself to extremes of temperature and variations of climate.

Its behavior on various soils and locations is no less striking. It is found growing from the lower river-bottoms, where it is occasionally flooded for several weeks at a time, up to at least 1,500 feet elevation, and on all kinds of soil, from the clays and clay loams to the lightest and poorest sandy soils,

which grow the "scrub pine." One of the oldest and largest Pecan trees that I have seen in Pennsylvania is growing near Colemanville, Lancaster County. This tree is growing on a steep, stony hillside, but it is thrifty and bears good crops of small seedling nuts, to the delight of the red squirrels, which get the larger share of the nuts, as the tree is growing quite near the forest.

There are larger wild Pecan trees, and more of them growing together, in Indiana, Illinois and Kentucky than in any given locality farther south, according to my observation. The largest and finest natural grove that I have seen is in Henderson County, Kentucky, along the Ohio River. This grove covers 500 to 600 acres in a solid body, and the trees are of large to very large size. A good many of these trees have trunk-diameters of 3 to 5½ feet, and are estimated to be 150 to 190 feet high.

Some of the finest and most productive northern varieties that have been discovered, and which I am now propagating by budding and grafting, have been found near the northern limit of the Pecan's natural range, and as these trees will be unquestionably hardy, and will mature their fruit anywhere that our more common orchard fruits can be grown, the area of the successful culture of this delicious and high-priced nut can now be greatly extended very profitably. The fruit of these northern varieties can and will compete very successfully with the best southern product.

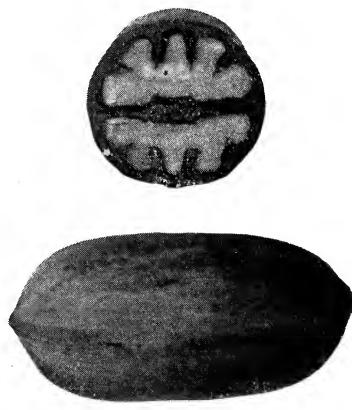
Some of the finest Indiana varieties bear nuts, under northern conditions, nearly as large as the best and most largely planted southern varieties, and the northern varieties selected for propagation are always well filled and of better quality than the finest southern varieties.

All who have eaten these nuts agree with me that such high quality and "nutty" flavor is not found in any of the varieties now grown in the lower South.

Budded and Grafted Trees Bear Early

The Pecan industry in the northern states is in its infancy as yet, and there are no budded or grafted trees in bearing, grafted trees of northern varieties being just now offered for the first time. Grafted trees of southern varieties bear very early, however, and I have every reason to believe that the northern varieties will behave likewise. I have seen seedling trees of this type, only ten years old, bearing quite satisfactorily indeed. It is to be expected that the age of bearing will be cut in two with grafted or budded trees in the North, as well as in the South.

BUSSERON. Originated in Knox County, Indiana. The Busseron is one of the best of the Indiana varieties. The nut is large, of good quality and fine appearance. Mr. Niblack says the old



Busseron Pecan

PECANS, continued

Busseron tree has the greatest bearing record of any Pecan tree in the state of Indiana. $1\frac{1}{2}$ to 2 ft., \$1.75; 2 to 3 ft., \$2; 3 to 4 ft., \$2.25.

INDIANA. Thought to be a seedling of the Busseron, as the tree is younger and is growing near the Busseron tree. With my present knowledge, if I were planting a commercial orchard, this variety would be my first choice. The nut is large, shell soft, meat full and of very good quality. The original tree of the Indiana is the greatest bearer I have ever seen, either north or south, very desirable for any purpose. $1\frac{1}{2}$ to 2 ft., \$1.75; 2 to 3 ft., \$2; 3 to 4 ft., \$2.25; extra-large, \$2.50.

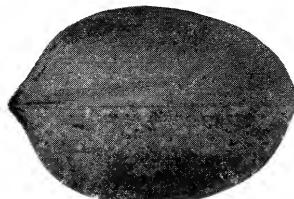
GREEN RIVER. Originated in Henderson County, Kentucky. The original tree is very large and tall. The nut is medium size; the kernel is very plump and full, and is easily extracted. This Pecan is a real paper-shell, and can't be beaten in quality. The tree is an excellent bearer. This is my favorite for home use. $1\frac{1}{2}$ to 2 ft., \$2.

MAJOR. Originated in Henderson County, Kentucky. The original tree is very large and tall. The nut is small to medium in size and nearly round. The shell is soft and the kernel rich and of excellent quality.

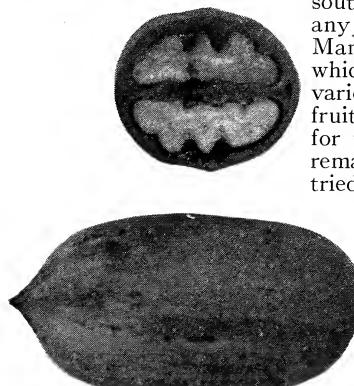
This will be the favorite with confectioners, as the plump, round, attractive meats are easily extracted. Also one of the best for home use. $1\frac{1}{2}$ to 2 ft., \$2.

WARRICK. Originated in Warrick County, Indiana. The Warrick is one of the largest and finest of the Indiana Pecans. The nut is uniform in size, of light color, and is very attractive. The original tree, still standing in Indiana, and of very large size, has a good bearing record, as observed by Mr. Littlepage, and I recommend it for extensive planting. $1\frac{1}{2}$ to 2 ft., \$2.

STUART. The Stuart is one of the best of the large southern Pecans, and has been more largely planted than any other in the South. I recommend this and the Mantura, especially for planting in the "middle belt," which is too far north for nearly all of the Gulf Coast varieties, and yet not in the northern belt. Stuart is fruiting quite successfully in Virginia; I recommend it for that section and south and west. The Stuart is a remarkable Pecan, as it is proving successful wherever tried. The tree is perfectly hardy here in Pennsylvania, and is not injured in the least by a temperature of 25 degrees below zero; it is also growing well in Indiana and Illinois. My trees of this and Mantura are Virginia-grown, but propagated by myself. I can furnish about 4,000 trees of Stuart, Virginia-grown, fine, sturdy vigorous stock, and they are worth much more to planters in the middle belt than southern-grown trees. $1\frac{1}{2}$ to 2 ft., 60 cts.; 2 to 3 ft., 75 cts.; 3 to 4 ft., \$1; 4 to 5 ft., \$1.25; extra heavy, 5 to 7 ft., \$1.75.



Green River Pecan



Indiana Pecan



Stuart Pecan



Warrick Pecan

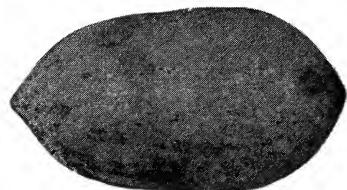
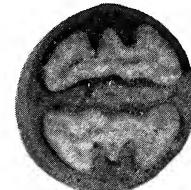


PECANS, continued

MANTURA. Originated along the James River, in Virginia. The Mantura is a large, paper-shell nut of very good quality. The original tree is said to have been grown from a nut brought from New Orleans. This variety is very successful in Virginia, and I recommend it for that section and south and west thereof. 2 to 3 ft., \$1; 3 to 4 ft., \$1.25; 4 to 5 ft., \$1.50.

Parties wanting trees in quantity will please write for list of trees that I can furnish in quantity and prices on the number of trees wanted.

"The stately Pecan and the sturdy Shagbark can be made to replace, north and south, the millions of poplars, willows and other 'bundles of leaves' which please the eye but render no valuable annual or final returns. The chief reason why this has not been done is because people have not thought about it."—DR. ROBERT T. MORRIS. (Dr. Morris is ex-president of the Northern Nut-Growers Association.)



Mantura Pecan

THE PERSIAN or ENGLISH WALNUT

The Persian or English Walnut (called "Dutch Nut" here in Pennsylvania) was first introduced here by the early German settlers, and, perhaps, the first trees planted in this country were either planted here or at Germantown, Philadelphia. The tree appears to be right at home here, and many large, thrifty old trees attest to the forethought of the early German settlers, who brought either seed nuts or trees with them from the Fatherland.

In obtaining information on several hardy and productive Persian Walnut trees growing in other states, I find that these trees have been grown from seed nuts obtained from these trees, so that the Persian Walnut industry in the eastern and northern states may be said to have started from such of these trees, imported and planted by the German settlers, as proved to be hardy and productive under our conditions.

The Persian Walnut has been grown quite extensively in portions of California for a good many years, and, with the introduction of the hardy French varieties, Oregon and Washington were added to the list of Walnut-growing states.



A grafted tree of the Rush Persian Walnut planted in the spring of 1905. This tree has been bearing well for several years. Mr. Rush and Mildred Jones near the tree.



Persian Walnut orchard in western New York

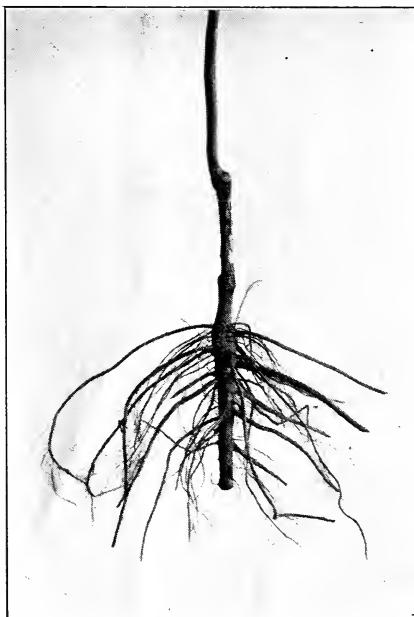
PERSIAN or ENGLISH WALNUT, continued

Now the finest orchards of Persian Walnuts on the Pacific Coast are to be found in these states.

Although occasional trees of the Persian Walnut have been growing and fruiting well in portions of several eastern and northern states for many years, comparatively few attempts have been made to grow this nut in a commercial way, as attempts to propagate the trees by budding or grafting, until quite recently, have not been successful. Seedling trees, under our conditions, have proved very freakish and unreliable, as they are generally decidedly lacking in vigor and, therefore, in hardiness. Even when the trees were grown from seed nuts taken from known hardy and productive trees and such trees as proved to be vigorous and hardy, they were not to be depended upon to bear satisfactorily or to produce nuts of large size and of good quality.

With the increasing and widespread interest in nut-culture in recent years, there came an urgent demand for dependable trees for northern planting. I felt the urgent need of the propagation, by budding or grafting, of the best of these hardy and productive Persian Walnuts, as well as hardy and dependable varieties of the Pecan. The Persian Walnut is more difficult to propagate, by budding and grafting, than either the Pecan or Shagbark, under northern conditions; but I have perfected methods that are giving fairly satisfactory results here in Pennsylvania, and, as soon as my mother blocks have sufficient capacity, I expect to propagate these trees on an extensive scale.

So far as I know, I was the first to propagate the Persian Walnut successfully east of the Rocky Mountains, and the first to use our native Black Walnut as a stock on which to bud and graft the Persian varieties in nursery propagation. The results being obtained are very gratifying, and I look forward with confidence to a growing and very profitable Walnut industry in the eastern states.



Walnut tree showing lateral root-system that we get here in Pennsylvania



Young budded Persian Walnut trees bearing in the nursery row. The tree in the foreground is 5 feet high

Where the Persian Walnut May Be Grown

I find the Persian Walnut already growing successfully in several eastern and northern states besides Pennsylvania. It is found growing and fruiting in portions of New York, Ohio, Michigan, Connecticut, New Jersey, Maryland, Delaware and Virginia; also in the elevated or northern portions of North and South Carolina, Georgia and Alabama. For the most part, these trees are found only as isolated specimens, or at least only a few trees in any given locality; but there are a few exceptions, as in portions of New York, Pennsylvania, New Jersey and Maryland, where an occasional orchard, usually small in extent, has been planted out. The largest bearing orchard, of which information has reached me, is near Rochester, N. Y. This orchard contains 225 trees planted on eleven acres. The elevated portions of the states to the south of us, from Virginia westward, are admirably adapted to the Persian Walnut, but the Gulf Coast is not suited to these trees; neither is the Mississippi Valley, at least the southern portion; neither are the heavy black lands in portions of some of the more western states, in my opinion.

A fairly safe rule in judging as to whether or not your soil and climate are suited to these trees is to plant only on land that will grow the apple or similar fruits successfully, yet where the climate is not too severe to grow and fruit the peach successfully. This has reference only to budded or grafted trees of known hardy and productive varieties, worked on the Black Walnut or other hardy and vigorous stocks, which are suited to the conditions where the trees are to be grown. I have never seen a successful seedling Persian Walnut tree west of Ohio or south of Michigan; but young trees which have been grafted upon the Black Walnut stock are now growing success-



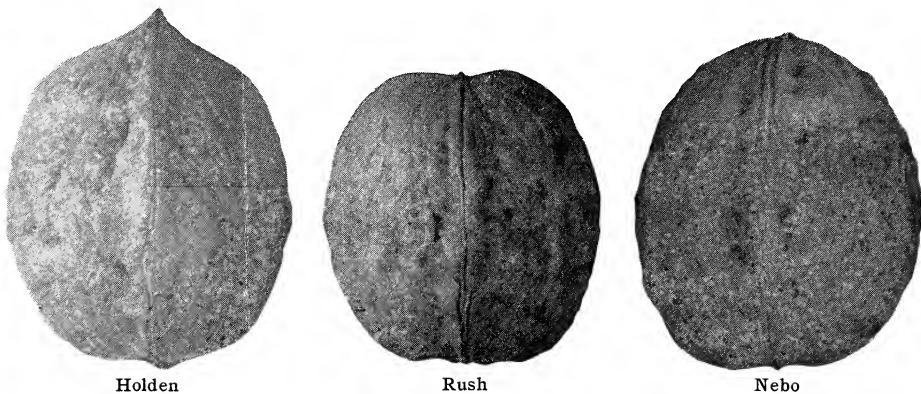
Persian Walnut tree three years from bud, which bore 21 fine Walnuts

fully where seedling trees have failed repeatedly. The use of vigorous and hardy stocks, adapted to a wider range of soils, gives promise of extending the cultural area of this nut very materially, as well as making the trees more vigorous and more hardy for any and all locations.

The writer planted the first grafted Persian Walnut trees that were planted in the state of Missouri. These were imported trees, pot-grown and grafted under glass, in France. These trees were planted on my fruit-farm in the Ozark Mountains, at an elevation of 1,550 feet. These trees were grafted upon stocks of their own species, and, although they survived the winters there for several years without apparent injury, they made no appreciable growth, and finally died out altogether.

Unfortunately, all of my early grafting in Missouri was on Persian Walnut stocks and, while they grew better than the pot-grown trees, they finally became weakened and died out like the imported trees. Not far from where my fruit-farm was located, however, two Black Walnut trees, grafted by a Mr. Fry, with scions taken from a young Franquette seedling, grew vigorously and made fine trees. These trees were examined by the writer in the summer after the hard freeze in February, 1899, and not a twig had been injured, although the mercury reached the unprecedented low level, for that section, of 32 degrees below zero.

Where the Persian Walnut is not grown and, therefore, little known, the general impression appears to be that the tree is suited only to warm or semitropical climates. The truth is that the tree is a failure in very warm climates, at least as regards its bearing. The tree does its best in bearing and in the quality of fruit produced in cool climates, and where the tree grows well and ripens its growth up early and well, it will stand quite low temperatures without injury. Here in Pennsylvania the tree is perfectly hardy, healthy and long-lived, although the winters are sometimes quite severe.



Some Advantages of Eastern Conditions

A study of conditions would indicate that the Walnut-grower in the eastern states, who plants hardy and productive varieties budded or grafted on the Black Walnut or other vigorous and hardy stocks, will probably suffer less from frost injury than does the California grower, where the Walnut is grown so extensively and so profitably. In some of the valleys in California, where the Persian Walnut is extensively grown, the tree is sometimes injured by winter temperatures of 16 to 22 degrees *above* zero, while here in Pennsylvania vigorous and hardy trees are not at all injured by temperatures of 16 to 22 degrees *below* zero.

We have varieties which produce, under eastern conditions, fruit equal to the best California product in size and appearance, and superior to the California product in quality. Instead of having to ship our product across the continent, and being at the mercy of the transcontinental railroads, we have the best markets in the world for Walnuts right at our door. We have another advantage over the Pacific Coast in the season of ripening of our Walnuts. Right here in Pennsylvania the crop is ripe and falls from the trees early in September, a month before the California crop is ripe, and two months before the imported Walnuts reach our markets.

RUSH. Originated by Mr. J. G. Rush, of this county. The Rush has the distinction of being the first eastern variety to be propagated. It was first named and propagated by me in 1903, and catalogued and introduced from my Florida nurseries in 1904. This is one of the best and most desirable varieties. The nut is medium to large, quite smooth and attractive; the kernel is full and of very good quality. The tree is exceptionally strong and vigorous in growth, becoming in time large, beautiful and impressive. It bears good crops of fruit very young and very regularly. It is one of the best self-pollinators that I have observed, and is, perhaps, the best variety to plant near or among other varieties to insure their being properly pollinated, and thus insure the bearing of good and regular crops.

NEBO. Also originated in this county. This we consider one of our finest varieties. The nut is quite large, being of the Parisienne type, and the kernel is full and of very good quality. The original tree is probably one hundred years old, and is one of the largest in this section. The variety bears good and regular crops, and I recommend it for extensive planting.

HALL. Originated in Erie County, Pennsylvania. Named for the originator. First catalogued and introduced by me in 1908. If you want the largest Walnut to be had, here it is. The Hall is of the mammoth type, and is a wonder for size. Like all of the mammoth Walnuts, the shell is not smooth, but the tree bears very young and very heavy crops. The tree makes very hard, solid wood, and is one of the hardiest in the list.





Mayette



Pomeroy



Parisienne

HOLDEN. Originated near Rochester, New York. Named for the originator, and now offered for the first time. My attention was first called to this excellent variety by Dr. W. C. Deming, Secretary of the Northern Nut-Growers Association, Georgetown, Connecticut. The nut is large, very smooth and very attractive. The kernel is plump and of excellent quality. The original tree is comparatively young, but bears good and regular crops of these fine nuts. The hardest variety to propagate in the list. Supply of trees quite limited, and not more than one tree sold to any one customer this season. Fine trees, \$3 each.

POMEROY. Originated near Lockport, New York. This variety has been quite largely disseminated in the form of seedling trees, with the evident belief that they would produce true to type. I have examined a number of these trees, however, and find that the fruit varies greatly in size and thickness of shell, and doubtless the trees will vary still more in their bearing propensity. I noticed in an orchard of these seedlings, planted near Philadelphia, a number of trees which were evidently hybrids of the Black Walnut, or butternut. These hybrids, so far as I have observed them, are of little practical value. The Pomeroy nut is of medium size; the shell is not so soft as some, but the cracking quality is very good and the kernel is full, very plump and of excellent quality. In my opinion, this nut is one of the best in quality of kernel. It is a very thrifty grower and makes a beautiful tree. One of the hardiest trees and best bearers that I have. This is the easiest variety in the list to propagate.

MAYETTE. Originated in France, and is quite largely grown in the Grenoble district. Nut quite large, smooth and of very fine appearance. This is considered the finest Walnut that reaches the New York markets where it is called the Grenoble Walnut, and always brings the highest prices, especially around the holiday seasons. This and the following hardy French Walnuts are perfectly hardy here in Pennsylvania. I have no trees in bearing, and therefore can't say what they will do in this respect; but see no reason why they won't bear as well as any other hardy Walnuts. The tree is strong and vigorous in growth, and very handsome. 2 to 3 ft., \$1.50; 3 to 4 ft., \$1.75; 4 to 5 ft., \$2.

FRANQUETTE. One of the best of the French Walnuts, and is being more largely planted, perhaps, on the Pacific Coast than any other. The nut is quite large and smooth, and sells for good prices. This is one of the nuts which proved so successful in the extreme West, and has made the growing of Persian Walnuts such a profitable industry in Washington and Oregon. 2 to 3 ft., \$1.50; 3 to 4 ft., \$1.75; 4 to 5 ft., \$2.

PARISIENNE. Held in high esteem in France, and on the Pacific Coast where tried. A grower in North California wrote recently that this was his favorite. My stock of this is from a very productive tree in North California. The tree is very vigorous and very hardy. The nut is very large and the smoothest of the very large nuts.

Prices of Walnut trees, except where noted, 2 to 3 ft., \$1.75 each; 3 to 4 ft., \$2 each; 4 to 5 ft., \$2.25 each; larger sizes, \$2.50 each.



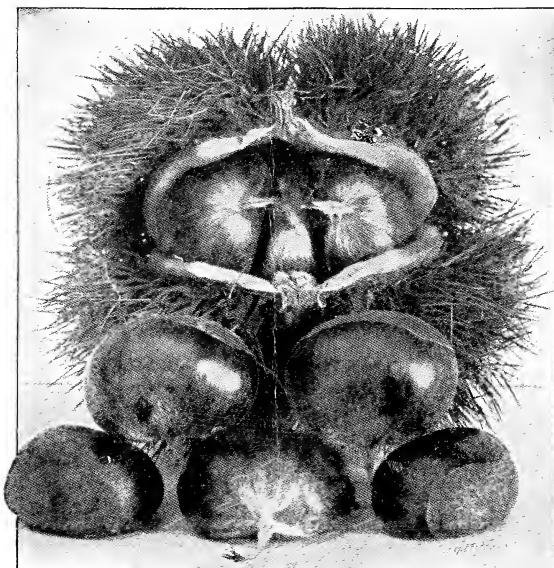
Franquette

THE CHESTNUT

The Chestnut is especially adapted to mountain soils, and grows naturally up to at least 3,000 feet elevation. The tree succeeds on any fairly light, well-drained soil, also on rough, stony land where little else will grow. No collection of nut trees is complete without some Chestnut trees, and the following will be found the best to be had.

PARAGON. Originated at Germantown, Philadelphia. The most widely disseminated and the most popular Chestnut ever introduced. The nut is very large and

the best in quality of any of the large Chestnuts of the European type. The tree bears very young, generally the second or third year, and so abundantly that for best results it is necessary to thin the nuts by knocking off a portion of the burrs. If this is not done, the heavy bearing on very young trees will prevent their making satisfactory growth. This variety is also known as "Sober Paragon," under which name it has been widely disseminated by a New York firm, Captain Sober of Union County, Pennsylvania, being one of the first to propagate the variety extensively, and one of the first to use it in extensive sprout grafting.



Paragon Chestnuts

with the veteran Illinois fruit-grower and hybridizer, E. A. Riehl. Supposed to be a native sweet Chestnut, but the nut is so much larger than the type as to suggest the possibility of its being a hybrid, although the tree shows none of the European or Oriental characteristics. The nut is very large for this type, and the quality is sweet and excellent. (A very valuable Chestnut for any purpose, as it bears good and regular crops, which sell for the highest prices.) The tree is very regular and handsome in growth, with attractive foliage.

BOONE. Originated with Mr. Geo. W. Endicott, of southern Illinois. This is a hybrid of the American Sweet and a select Japan variety. The tree resembles the Japan type somewhat, and, like the Japans, bears very young. This nut combines the large size and fine appearance of the Japans with the high quality of the sweet Chestnut to a remarkable degree, and will give highly satisfactory results, I feel sure, in any locality.

RUSH HYBRID CHINQUAPIN. Originated in this county, and thought to be a hybrid of the Bush Chinquapin and the Sweet Chestnut. The nut is nearly as large as the average Sweet Chestnut and of better quality than any Chestnut. The fruit is borne in large clusters, or racemes, and the tree is very productive. Especially fine for home use. The foliage is very dense, and the tree makes a symmetrical and beautiful specimen, being about midway between the Chestnut and Chinquapin in size. As a lawn tree it is very handsome.

Prices of all varieties of Chestnut trees, \$1 each

Planting and Care of Nut Trees

It is important that nut trees should be carefully handled and planted to get the best results. Keep the roots of the trees moist, and expose them to sun and wind as little as possible in planting. The holes should be dug large enough to accommodate the roots in a natural position, and in filling use only good top-soil about the roots. This should be well firmed or tamped about the roots, as the hole is filled, with the shovel or spade-handle or a tamping stick with a smooth, rounded end that will not bruise the roots. Don't put any manure or other coarse material in the holes about the roots. A few handfuls of bone meal or blood and bone, well mixed with the soil which is used about the roots, will do no harm and will give quite satisfactory results in growth.

It is especially important that Pecan or Walnut trees have the tops well reduced or cut back, either before or after planting, and before growth starts. This forces an earlier and stronger growth, which induces the formation of new feeding roots, and by fall the tree is established in its new location and matures and ripens its wood up well so that it will not be injured by extremes of cold. The trees will need no further pruning for several years. It is a mistake to try to prune and shape up very young trees. Let all of the growth remain for at least two years, as the trees need it. After the tree is well established and making good growth, it can be pruned and shaped up as wanted. After the head is formed the tree will need little further attention.

After the trees are planted they should be cultivated for at least two or three years and, if in orchard form, crops of almost any kind can be planted between the trees, as, being 40 to 60 feet apart, they take up little room and are not materially in the way of cultivating other crops for several years. Where planted on lawns, along fences or avenues, or anywhere that it is not practical to cultivate, the trees should be hoed occasionally or mulched with strawy stable manure or litter that will keep down weeds and grass and conserve moisture. After the trees have become deep-rooted and well established, they will, perhaps, need little further attention except to keep up the fertility on land not naturally rich, although it will probably pay to cultivate the trees when in orchard form several years longer.

What Others Have to Say

"As a shade tree the Pecan has few equals, and, when planted in favorable surroundings, lives for centuries. Its gray trunk, its rugged branches, its wide-spreading, leafy top, are objects of lasting beauty in any landscape."—H. HAROLD HUME. (Prof. Hume is the author of "The Pecan and Its Culture.")

"I have seen wild Pecan trees producing many bushels of nuts. I have seen a single tree, the production of which was sufficient to support a small family for a year."—E. W. KIRKPATRICK.

"I want, as a result of my agitation to get a good many million trees of useful varieties planted out, in place of the miserable worthless willows, maples, ash, tulip, elm and other fruitless trees with which the American nation is now shading itself."—DR. J. RUSSELL SMITH.

"It is generally understood that the Pecan is essentially a southern tree, and it is, therefore, especially worth while to emphasize the fact that its northern range carries it to southern Indiana, and that, in the valleys of the Wabash and its tributaries, there have been and are now being discovered varieties of a size, quality and productiveness which will make them successful rivals of the cultivated types now established in the South. There is no doubt that in the near future the Pecan will be found growing throughout New England and the more favored portions of New York, and that when this addition comes to our list of fruits, we shall have added what, in my estimation, is the king of nut fruits."—PROF. JOHN CRAIG.



View of trunk of one of the "Giant" Pecan trees of Indiana

J. F. JONES

THE NUT TREE SPECIALIST

LANCASTER, PA.